

IV. REMARKS

1. Claims 1-23 remain in the application. Claim 23 has been amended.

2. The Abstract of the Disclosure has been amended to comply with MPEP 608.01(b).

3. Applicants appreciate the indication that claims 1-7, 16-18, and 22 are allowed.

4. Applicants appreciate the indication that claims 9, 14, and 15 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. However, Applicants believe that these claims are patentable as they stand for the reasons stated below.

5. Applicants respectfully submit that claims 8, 10-13, 19-21, and 23 are not anticipated by Serikawa et al. (US 6,028,845, "Serikawa").

5.1 Regarding claims 8 and 19, Serikawa fails to disclose or suggest transmitting test data mapped into two consecutive frames to a decoder for decoding.

Serikawa also fails to disclose or suggest determining the performance of decoding by comparing the transmitted signalling data and the received signalling data.

Serikawa discloses a communication-line-quality measuring system used in a two-way community antenna television (CATV) system and a personal handyphone system (PHS), for example as used in Japan (column 1, lines 5-14). The testing configuration includes a testing apparatus (TDMA equipment) and terminal equipment, which

is further connected to a telephone (Fig. 10, column 11, lines 46-67). Test data is sent from the TDMA equipment to the terminal equipment which loops back this test data. The TDMA equipment then compares the received data to the sent data (column 9, lines 39-50). The measuring system of Serikawa is intended to measure the quality of communication lines in the system.

However, Serikawa fails to disclose a method or a system for measuring decoding performance. On the contrary, Serikawa merely deals with testing the uplink and downlink lines between the TDMA equipment and the terminal equipment.

Furthermore, Serikawa does not disclose test data, which is mapped into two consecutive frames. The passage referred by the Examiner (col. 9, ln. 34-44) is silent about any test data, which would be mapped into two consecutive frames.

The present invention relates to a method for determining the performance of decoding in a telecommunication system comprising a decoder and a testing apparatus for supplying test data to the decoder. An AMR (Adaptive Multirate) codec used in GSM includes features which were not included in previous codecs and therefore all the features of AMR codecs cannot be tested by using known testing loops. Some synchronisation problems occur when the signalling data using half-rate codec is sent in two frames in a downlink and then sent back in one frame in an uplink (see for example paragraphs 0050-0052 of the present specification).

The present invention solves these synchronisation problems in order to determine decoding performance. According to the present invention, test data including signalling data in a

signalling frame format is generated, the test data is mapped into two consecutive frames, and then is transmitted from the testing apparatus to the decoder for decoding. The signalling data is decoded from the received two consecutive data frames and then transmitted back to the testing apparatus encoded in one frame. The decoding performance is determined by comparing the transmitted signalling data and the received signalling data in the test apparatus.

Serikawa is silent about any synchronisation problems, which are caused by a test data mapped into two consecutive frames. Thus, it is evident that one of ordinary skill in the art would not learn to solve the problems found in the prior art by reading Serikawa.

5.2 Regarding claim 23, Serikawa fails to disclose or suggest a receiver for receiving test data comprising signalling data mapped into two consecutive frames from a testing apparatus.

Serikawa also fails to disclose or suggest a mobile station including a transmitter for transmitting the test data back to the testing apparatus encoded in one frame.

The arguments supporting Serikawa's failure to disclose or suggest signalling data mapped into two consecutive frames are the same as those presented above.


There is no disclosure in Serikawa related to transmitting test data back, originally received in two consecutive frames back to a testing apparatus encoded in one frame.

5.3 Claims 10-13, 20, and 21 depend from claims 8 or 19 and therefore are also not anticipated by Serikawa.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

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Respectfully submitted,


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5 January 2005
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